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ABSTRACT

A sensor system with variable sensor-signal processing comprises an integrated circuit sensor unit. The integrated circuit sensor unit includes a sensor element that provides a sensed signal in response to a measurement variable, and a memory device that stores adjustable coefficient values. The integrated circuit sensor units also includes a sensor signal processing unit that processes the sensed signal using adjustable coefficient values to provide a sensor output signal on a output line. The sensor system receives updated adjustable coefficient values via the output line and stores the updated adjustable coefficient values in the memory device.

A sensor system includes a sensor signal processing unit and an analytical unit. The analytical unit is designed in such a way that at least one parameter for signal processing can be redefined on the basis of the output signals delivered by the sensor processing unit. At least one connecting line between a sensor signal processing unit and the analytical unit establishes a connection for transmitting at least one of the newly defined parameters for processing the sensor signal to the sensor signal processing unit. The sensor signal processing unit is inventively designed in such a way that the newly transmitted parameters for processing the sensor signal replace the originally prescribed parameters.